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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Sung Uk Park

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EXAMINER

ELALLAM, AHMED

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/026,777	Applicant(s) PARK, SUNG UK	
	Examiner AHMED ELALLAM	Art Unit 2668	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-5, 7, 14, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) 2,3,8-13,15,16 and 19-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 4, 5, 7, 14, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kametani et al, US 6,839,346 in view admitted prior art, specification paragraphs [0003]-[0006] and figure 1. Hereinafter referred to as Kametani and APA respectively.

Regarding claim 1, with reference to figure 2-4, Kametani discloses a method for routing a packet in a switching apparatus (figure 2) (claimed routing device) having a microprocessor 11 (claimed main processor), a packet memory (claimed main cache table), IP flow table (claimed instant cache table), the IP flow table for storing IP source address and IP destination address, and corresponding output port (see figure 3) (claimed instant cache table storing a recent address (IP address as in claim 14) and a recent interface (IP interface as in claim 14) associated with the most recent packet transmission process made by the routing device) (Examiner interpreted the port as being the claimed interface), the method comprising:

Receiving an IP packet, the IP packet includes its destination address, see column 8, lines 64-69, column 9, lines 1-2, and figure 4, step 301. (Claimed receiving a packet (IP packet as in claim 14) that includes its destination address),

Searching the IP flow table for determining if a search key is registered, see column 9, lines 29-42. (Claimed checking whether the destination address (destination IP address as in claim 14) is identical to recent address),

Transmitting the packet to the corresponding port if the search key is registered, see figure 4, steps 306-309 and column 9, lines 29-52. (Claimed transmitting the packet to the recent interface (IP interface as in claim 14) if the destination address (destination IP address as in claim 14) is identical to the recent address (IP address as in claim 14)).

The difference between Kametani and claims 1 and 14 is that Kametani does not disclose checking if a destination address (destination IP address as in claim 14) of received packet (IP packet as in claim 14) belongs to the routing apparatus.

However, APA discloses packets having destination address (destination IP address as in claim 14) belonging to the routing device. (Examiner interpreted the top application module of figure 1 for processing some packet received at the routing device as being the claimed packets having destination address belonging to the routing device, since the routing device in such instance is understood of being the destination device). It would have been obvious to a person of skill in the art at the time the invention was made to check the received packets whether their destination addresses belong to the routing apparatus or not so that further processing can be made in case the destination address is the same as the routing apparatus (APA, Application module

3 processing) and routing the packets to respective ports if a destination address is not the same as that of the routing apparatus.

Regarding claims 4 and 17, APA figure 1 shows a protocol layer 2 for receiving IP packets from the main processor, the protocol layer being connected to a routing table 4.

Regarding claims 5 and 18, APA figure 1 shows a top application layer 3 for receiving IP packets from the protocol layer 2, see paragraph [0005]. (Claimed sending IP packet to a top application module included in the routing device).

Regarding claim 7, APA discloses the first interface correspond to the destination address is found by searching the routing table. See paragraph [0006].

Allowable Subject Matter

2. Claims 2, 3, 8-13, 15, 16, and 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

3. Applicant's arguments filed 01/16/2006 have been fully considered but they are not persuasive:

Specification:

The objections to the disclosure have been withdrawn in view of the Amendment to the specification.

112 2nd paragraph:

Rejections under 35 USC § 112 have been withdrawn.

Claim Rejections under 35 USC § 103:

As to claims 1 and 14, Applicant argues that that none of the cited references, taken alone or in any proper combination, disclose suggest or render obvious the limitations in the combination of these claims, stating that *"the routing device of Kametani doesn't include an instant cache table that stores recent address and recent interface associated with the most recent packet transmission process made by the routing device, because the routing IP table of Kametani (figure 3) merely contains information that is searched by the search processing section in response to a search instruction, where a search key composed of the IP destination address and/or an IP source address are used for the search. The IP flow table is searched to determine if the received packets have been registered, and if registered, replies the registered result of a routing process of the packet to the packet processing section. If not registered, i.e., does not exist in the IP flow table, temporary registration of the IP flow to the IP flow table occurs. This is not an instant cache table storing a recent address and a recent interface associated with the most recent packet transmission process made by the routing device. The IP flow table in Kametani stores all flow data for all routing packets that are registered in the table. This is not information related to the most recent packet transmission made b the routing device."*

Examiner respectfully disagrees, as Applicant admits that Kametani discloses that "IP flow table is searched to determine if the received packets have been

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registered, and if registered, replies the registered result of a routing process of the packet to the packet processing section. If not registered, i.e., does not exist in the IP flow table, temporary registration of the IP flow to the IP flow table occurs" reads on the claimed limitations, because the determination of the packet being registered is interpreted of being the claimed packet belonging to the routing device, and the fact that a temporary registration in the routing table is made reads on the claimed table storing a recent address and a recent interface associated with the most recent packet transmission process made by the routing device, because the temporary registration teaching implicitly provides for a packet having the same destination of the temporary registered packet to be routed to the same interface that correspond to the temporary registered packet, and that reads on the claimed storing a recent address and a recent interface associated with the most recent packet transmission process made by the routing device.

As to the argument that Kametani does not disclose checking whether the destination address is identical to the recent address if the destination address doesn't belong to the routing device, Examiner already admitted such fact in the 103 rejections.

Further Applicant argues that "the APA illustrate an example where a packet whose destination address is set to another node or another routing device is received. The IP layer 2A determines whether to process the packet, and if so sends the packets to the top application module. These portions do not disclose or suggest checking whether the destination address belongs to the routing device, as recited in the claims. The APA merely discloses that a packet is received and it is determined whether it be

processed and if so it is sent to the top application module". Examiner respectfully disagrees, firstly because Applicant fails to explain what is meant by the "packet belonging to the routing device", and secondly the APA teaching of when a packet is received a determination whether it be processed and if so it is sent to the top application module is the same as the corresponding description related to the claimed "checking whether the destination address belongs to the routing device".

Nevertheless, in case of disagreement with the Examiner position, Applicant is respectfully requested to fully explain the meaning of the "destination address belongs to the routing device" and "not belonging to the routing device" and points out supportive evidence the specification in the specification or provide evidence, in lieu of arguing that a person of skill in the art know what is meant by destination address belongs or not belong to the routing device.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571) 272-3097. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou Hassan can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHMED ELALLAM
Examiner
Art Unit 2668
3/19/06

5.



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